

**R E M A R K S / A R G U M E N T S**

Reconsideration of the present application, as amended, is respectfully requested.

The April 20, 2004 Office Action and the Examiner's comments have been carefully considered. In response, claims are amended and added, the specification and abstract are amended, and remarks are set forth below in a sincere effort to place the present application in form for allowance. The amendments are supported by the application as originally filed. Therefore, no new matter is added.

**INFORMATION DISCLOSURE STATEMENT**

In the Office Action, the Examiner states that the Information Disclosure Statement filed March 18, 2002 fails to comply with 37 CFR 1.98(a)(2) which requires a legible copy of each U.S. and foreign patent. The Examiner states that only one of three non-patent literature items of the IDS has been considered because the Examiner's attempt to retrieve copies of the references which were not provided with the Information Disclosure Statement failed to obtain the items.

In response, submitted herewith is a copy of the two non-patent literature items not obtained by the Examiner. Consideration of the references is now requested.

#### ABSTRACT OF THE DISCLOSURE

In the Office Action, the Abstract of the Disclosure is objected to because of certain informalities. In response, the Abstract of the Disclosure is amended in a sincere effort to more clearly comply with the requirements set forth in MPEP Section 608.01(b), i.e., to be less than 150 words and in a single paragraph, and to eliminate the reference to a "figure."

In view of the amendment of the Abstract of the Disclosure, reconsideration and withdrawal of the objection to the Abstract of the Disclosure are respectfully requested.

#### SPECIFICATION

Page 4 of the specification is amended to correct an informality identified by the Applicant. No new matter is added.

#### CLAIM OBJECTIONS

In the Office Action, claims 2, 3, 5 and 8 are objected to because of certain informalities. In response, claims 2, 3, 5 and 8 are amended in a sincere effort to overcome the objection thereto. In view of the amendment of claims 2, 3, 5 and 8,

reconsideration and withdrawal of the objection to these claims are respectfully requested.

REJECTION UNDER 35 USC 112

In the Office Action, claims 1, 2, 4 and 7 are rejected under the second paragraph of 35 USC 112 as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. In response, these claims are amended in a sincere effort to overcome the indefinite rejection. Specifically, claims 1, 2 and 4 are amended to recite "step actions" of the method in accordance with the invention and claim 7 is amended to depend from claim 1.

In view of the amendment of the claims, reconsideration and withdrawal of the rejection of claims 1, 2, 4 and 7 under the second paragraph of 35 USC 112 are respectfully requested.

REJECTION UNDER 35 USC 101

In the Office Action, claims 1 and 7 are rejected as being directed to non-statutory subject matter. In response, claims 1 and 7 are amended in a sincere effort to be more clearly directed to statutory subject matter. Specifically, claim 1 is amended to recite specific "step actions" which express functions, i.e., forming the functional requirements specification and forming the

requirements object model, while claim 7 is amended to depend from claim 1.

In view of the amendment of claims 1 and 7, reconsideration and withdrawal of the rejection under 35 USC 101 are respectfully requested.

REJECTIONS UNDER 35 USC 103

In the Office Action, claims 1-5 and 8 are rejected under 35 USC 103 as being unpatentable over USP 6,199,195 (Goodwin) in view of the article by Saint-Marcel et al. Claim 6 is rejected under 35 USC 103 as being unpatentable over Goodwin in view of the article by Saint-Marcel et al. and further in view of USP 6,366,683 (Langlotz).

In response, independent claim 1 is amended in order to more clearly define the present claimed invention over the cited references. Specifically, claim 1 is directed to a method for developing a family of complex systems having a common software architecture platform including the steps of forming a functional requirements specification (FRS) which includes use cases that describe interaction of users with the complex systems in terms of abstract concepts, forming a requirements object model which explains the abstract concepts in terms of a structured vocabulary, developing the use cases simultaneously with the formation of the requirements object model, and amending the

requirements object model while the use cases are being developed. The requirements object model is considered completed once all of the use cases have been developed.

As discussed in the specification, the simultaneous or "hand-in-hand" authoring or development of the use cases and formation of the requirements object model is particularly advantageous when developing a family of complex systems. Advantages include a clear and consistent functional requirements specification (see page 2, lines 19-22) and a requirement object model which takes into account future evolution of the complex systems (see page 3, line 3-8). In particular, since writing use cases uncovers conceptual difficulties and shortcomings of the current requirements object model, the simultaneous development of use cases and formation of the requirements object model enables the requirements object model to be amended during its formation in consideration of such difficulties and shortcomings (see the specification at page 4, lines 16-23). Reasons why the requirements object model would be amended are discussed at page 11, lines 14-20. An improved requirements object model is therefore formed leading to an improved final design object model.

The cited prior art does not disclose, teach or suggest developing use cases, included in a functional requirements specification, simultaneously with the formation of a

requirements object model, and amending the requirements object model while the use cases are being developed (see claim 1, lines 11-16).

Goodwin describes a method which determines whether a particular unified model that a user wants to use has already been created (col. 11, lines 2-5). Goodwin does not, however, amend the object models 302, 304, 306 based on the unified model the user wants to use.

Saint-Marcel et al. describes modeling an invoicing system using unified modeling language in which the first step is the formation of a functional requirements specification including use cases. Saint-Marcel et al. does not develop the use cases simultaneous with the formation of the requirements object model or amend the requirements object model as the use cases are being developed.

In view of the foregoing, independent claim 1 is patentable over Goodwin and Saint-Marcel et al. when taken in combination under 35 USC §103(a).

The other references of record do not close the gap between the present claimed invention as defined by claim 1 and Goodwin and Saint-Marcel et al.

Therefore, claim 1 is patentable over all of the references of record under 35 USC 102 as well as 35 USC 103.

Claims 2-6 and 8 are either directly or indirectly dependent on claim 1 and are patentable over the references of record in view of their dependence on claim 1 and because the references of record do not disclose, teach or suggest each of the limitations set forth in claims 2-6 and 8.

NEW CLAIMS

New claims 9-15 are added to the present application. Claims 9-15 are dependent on claim 1 and further define the method of claim 1 and are patentable in view of their dependence on claim 1 and because the references do not disclose, teach or suggest the limitations set forth in claims 9-15.

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If the Examiner disagrees with any of the foregoing, the Examiner is respectfully requested to point out where there is support for a contrary view.

Entry of the amendment, allowance of the claims, and the passing of the application to issue are respectfully solicited.

Appln. No. 09/801,602  
Amdt. dated July 26, 2004  
Reply to Office Action dated April 20, 2004

If the Examiner has any comments, questions, objections or recommendations, the Examiner is invited to telephone the undersigned at the telephone number given below for prompt action.

Respectfully submitted,



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Encl.: Abstract

Two references requested by Examiner listed in the  
Information Disclosure Statement filed March 18, 2002  
a. Object-Oriented Requirements Modeling Based on UML  
b. A Client/Server Pattern-Oriented Framework for  
Distributed Medical Image Applications